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Merchant & Gould - Cox PO Box 2903 Minneapolis, MN 55402			VAN HANDEL, MICHAEL P	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/994,583	<b>Applicant(s)</b> CLEARY ET AL.	
	<b>Examiner</b> MICHAEL VAN HANDEL	<b>Art Unit</b> 2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1)  Responsive to communication(s) filed on 26 August 2010.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4)  Claim(s) 1-25, 27 and 28 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-25, 27, 28 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \*    c)  None of:
- Certified copies of the priority documents have been received.
  - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/26/2010 has been entered.

### ***Response to Amendment***

2. This action is responsive to an Amendment filed 8/26/2010. Claims **1-25, 27, 28** are pending. Claims **1, 2, 12, 13, 16-18, 22-25, 28** are amended. Claim **26** is canceled.

### ***Response to Arguments***

3. Applicant's arguments regarding claims **1, 2, 12, and 28**, filed 8/26/2010, have been considered, but are moot in view of the new ground(s) of rejection.

### ***Priority***

4. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

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The later-filed application must be an application for a patent for an invention, which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. 60/253,282, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application. The examiner fails to find support for at least the features of utilizing a portion of memory and allocating an additional portion of memory to store a next portion of the content, and repeating the utilizing and allocating of memory until the content is determined to have terminated. Although it appears the 60/253,282 application provides support for over-allocating memory for a program, it does not appear to provide support for continuously allocating additional memory as the program runs over. As such, the 60/253,282 application does not fully support the independent claims, as currently claimed.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Safadi et al.

Referring to claim 1, Safadi et al. discloses a method, comprising:

- presenting a program guide identifying audiovisual data and designating a set start time and a set stop time for the identified audiovisual data (p. 6, paragraph 61);
- receiving at a set-top box audiovisual data from a desired transmission channel beginning at the set start time (p. 4, paragraph 37 & p. 6, paragraph 61);
- if said audiovisual data is not compressed according to a predetermined format, compressing said received audiovisual data according to said predetermined format (p. 5, paragraph 51);
- in response to receiving a request for recording compressed audiovisual data selected from the program guide prior to the set start time for the selected compressed audiovisual data identified in the program guide (p. 6, paragraph 61), storing dynamically, in a mass storage device and for a predefined period of time (until viewed)(p. 7, paragraph 73), the selected compressed audiovisual data received from said desired transmission channel to be included in a title plan generated by a time shift scheduler, wherein said title plan includes information identifying the selected compressed audiovisual data stored dynamically (programs for recording) wherein the selected compressed audiovisual data has a variable duration extending beyond the set stop time (p. 5, paragraph 58 & p. 6, paragraph 61), wherein storing the selected compressed audiovisual data dynamically comprises:

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- allocating a first portion of memory in the mass storage device for recording a first portion of the selected compressed audiovisual data having the variable duration extending beyond the set stop time for subsequent access by users (memory is allocated to record the content beginning immediately prior to the start time of the event and ending immediately after the completion time of the event, based on the last near-real-time update of the program guide)(p. 6, paragraph 61);
- utilizing said allocated first portion of memory to record the first portion of the selected compressed audiovisual data having a variable duration extending beyond the set stop time (program fills first allocated time)(p. 6, paragraph 61);
- allocating an additional portion of memory in the mass storage device to record a next portion of the selected compressed audiovisual data having the variable duration extending beyond the set stop time in response to utilizing said allocated first portion of memory (a near-real-time program guide update indicates that that the program is running over and more memory is allocated)(p. 6, paragraph 61);
- utilizing said allocated additional portion of memory to record the next portion of the selected compressed audiovisual data having a variable duration extending beyond the set stop time (p. 6, paragraph 61);
- determining when reception of the selected compressed audiovisual data having the variable duration extending beyond the set stop time has

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terminated (a short time after updated, near-real-time data is received from the electronic programming guide server, an accurate ending time of the program is established(p. 6, paragraph 61);

- repeating said utilizing and said allocating said additional portion of memory until the selected compressed audiovisual data having the variable duration extending beyond the set stop time is determined to have terminated so that all of said selected compressed audiovisual data having a variable duration extending beyond the set stop time is stored (program is recorded until the last near-real-time program guide update indicates that the program has ended)(p. 6, paragraph 61); and
- deallocating any allocated next portion of memory not used to record the next portion of the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the selected compressed audiovisual data having the variable duration extending beyond the set stop time is determined to have terminated (a short time after recording the event, updated near-real-time data from the programming guide server is used to accurately establish the times that the event started and ended and the portion of the event that has been recorded after the event has ended is deleted from the recording in order to provide a clean recording and in order to free up disk space)(p. 6, paragraph 61); and
- in response to a user request, providing to said user said stored compressed audiovisual data beginning with a portion of said stored compressed

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audiovisual data having associated with it a first temporal parameter  
(subsequently viewed by the consumer)(p. 6, paragraph 61).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims **2-4, 7-16, 25, 27, 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi et al. in view of Ellis et al. (of record).

Referring to claims **2, 3**, Safadi et al. discloses a method comprising:

- in response to a title plan generated by a time shift scheduler, wherein said title plan includes information identifying a plurality of content and designating a set start time and a set stop time for each of the identified plurality of content (near-real-time program guide data)(p. 6, paragraph 61), wherein at least one of said plurality of content has a variable duration extending beyond the set stop time (p. 5, paragraph 58 & p. 6, paragraph 61), in response to receiving a request for recording content selected from the title plan prior to the start time of the selected content, storing dynamically the selected content and associating with the plurality of content a temporal parameter (p. 6, paragraph 61), wherein storing dynamically comprises:



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- allocating a first portion of memory in a mass storage device for recording a first portion of the selected content having a variable duration extending beyond the set stop time for subsequent access (memory is allocated to record the content beginning immediately prior to the start time of the event and ending immediately after the completion time of the event, based on the last near-real-time update of the program guide)(p. 6, paragraph 61);
- utilizing said allocated first portion of memory to record the first portion of the selected content having a variable duration extending beyond the set stop time (program fills first allocated time)(p. 6, paragraph 61);
- allocating an additional portion of memory in the mass storage device to record a next portion of the selected content having a variable duration extending beyond the set stop time in response to utilizing said allocated first portion of memory (a near-real-time program guide update indicates that that the program is running over and more memory is allocated)(p. 6, paragraph 61);
- utilizing said allocated additional portion of memory to record the next portion of the selected content having a variable duration extending beyond the set top time (p. 6, paragraph 61);
- determining when reception of the selected content having the variable duration extending beyond the set stop time has terminated (a short time after updated, near-real-time data is received from the electronic programming

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guide server, an accurate ending time of the program is established(p. 6, paragraph 61);

- repeating said utilizing and said allocating said additional portion of memory until the selected content having the variable duration extending beyond the set stop time is determined to have terminated so that all of said selected content having a variable duration extending beyond the set stop time is stored (program is recorded until the last near-real-time program guide update indicates that the program has ended)(p. 6, paragraph 61); and
- deallocating any allocated next portion of memory not used to record the next portion of the selected content having a variable duration extending beyond the set stop time after selected content having the variable duration extending beyond the set stop time is determined to have terminated (a short time after recording the event, updated near-real-time data from the programming guide server is used to accurately establish the times that the event started and ended and the portion of the event that has been recorded after the event has ended is deleted from the recording in order to provide a clean recording and in order to free up disk space)(p. 6, paragraph 61); and
- forwarding the selected content in accordance with said temporal parameter to a requesting subscriber (p. 6, paragraph 61); and
- in response to a subscriber request for temporally shifted content associated with the selected content, forwarding the stored selected content to said

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requesting subscriber (subsequently viewed by the consumer)(p. 6, paragraph 61).

Safadi et al. does not specifically disclose that the content is received and stored by a server and provided over a transport network to subscribers, where only the received plurality of content presently requested by any subscriber is forwarded to the transport network. Ellis et al. discloses an interactive television system that provides users with an opportunity to select programs for recording on a remote media server (see Abstract). Main program guide data is provided from program guide data source 14 to interactive program guide television equipment 17 (p. 3, paragraph 58). The program data includes program identifiers and times (p. 3, paragraph 60). The interactive program guide television equipment 17 has a remote media server (Fig. 2a). Programs are stored on remote media server in response to user record requests (p. 5, paragraphs 74, 76). Recorded programs are then received and transmitted to subscribers in response to subscriber retrieval requests (p. 7, paragraph 91). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the overrun recording system of Safadi et al. to be implemented on a remote media server, such as that taught by Ellis et al. in order to provide greater storage space (Ellis et al. p. 1, paragraph 5).

Referring to claim 4, the combination of Safadi et al. and Ellis et al. teaches the method of claim 2. The combination of Safadi et al. and Ellis et al. does not specifically teach storing, in said server, the plurality of content presently requested by a threshold number of subscribers. Ellis et al. discloses a consolidator 115 on the remote media server that consolidates multiple record requests for the same programs and places group record jobs on a job queue 120 (p. 6, paragraph 85). Ellis et al. further discloses only recording a program if a certain number of users

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have requested it (p. 6, paragraph 86). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Safadi et al. and Ellis et al. to include only recording programs requested by a certain number of users, such as that taught by Ellis et al. in order to save storage space.

Referring to claim **7**, the combination of Safadi et al. and Ellis et al. teaches the method of claim 2, wherein said storing of said desired plurality of content comprises storing a version of the desired plurality of content to generate a play track (content is played on subsequent access by user)(Safadi et al. p. 7, paragraph 78).

Referring to claim **8**, the combination of Safadi et al. and Ellis et al. teaches the method of claim 2, further comprising, storing selected plurality of content during a predetermined time interval of a broadcast schedule (Safadi et al. p. 6, paragraph 61).

Referring to claim **9**, the combination of Safadi et al. and Ellis et al. teaches the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift interactive programming guide screen (Safadi et al. p. 6, paragraph 61).

Referring to claim **10**, the combination of Safadi et al. and Ellis et al. teaches the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift navigation screen (Safadi et al. p. 6, paragraph 61).

Referring to claim **11**, the combination of Safadi et al. and Ellis et al. teaches the method of claim 2. The combination of Safadi et al. and Ellis et al. does not specifically teach that the subscriber request for temporally shifted content is initiated by receiving a pause or rewind subscriber selection while broadcasting of said desired plurality of content. Ellis et al. discloses

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providing VCR-like control of content stored at the remote media server, so that content can be provided in response to rewind and pause requests (p. 19, paragraphs 199, 200). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify transmission of content in the combination of Safadi et al. and Ellis et al. to provide content in response to a rewind or pause request, such as that taught by Ellis et al. in order to provide greater user-control over when to view content.

Referring to claims **12-14**, **25**, **27**, and **28**, Safadi et al. discloses a method/system for providing video information in an interactive information distribution system to a plurality of subscribers, comprising:

- receiving a plurality of scheduled broadcast programs on a desired transmission channel in real-time (p. 4, paragraph 37);
- selecting a portion of said broadcast programs according to a title plan generated by a time shift scheduler, wherein said title plan includes information identifying a plurality of content and designating a set start time and a set stop time for each of the identified plurality of content, wherein at least one of said plurality of content has a variable duration extending beyond the set stop time (p. 6, paragraph 61);
- processing said selected broadcast programs into temporally adjusted content, such that the temporally adjusted content is associated with said selected broadcast programs (recorded for subsequent viewing)(p. 6, paragraph 61);
- in response to receiving a request for recording content selected from the title plan prior to the start time for the selected content having a variable duration,

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storing dynamically said selected content associated with a program and having a variable duration extending beyond the set stop time for later access by subscribers (p. 6, paragraph 61), wherein storing dynamically said selected content having a variable duration extending beyond the set stop time for later access by subscribers comprises:

- allocating a first portion of memory in a mass storage device for recording a first portion of the selected content having a variable duration extending beyond the set stop time (memory is allocated to record the content beginning immediately prior to the start time of the event and ending immediately after the completion time of the event, based on the last near-real-time update of the program guide)(p. 6, paragraph 61);
- utilizing said allocated first portion of memory to record the first portion of the selected content having a variable duration extending beyond the set stop time (program fills first allocated time)(p. 6, paragraph 61);
- allocating an additional portion of memory in the mass storage device to record a next portion of the selected content having a variable duration extending beyond the set stop time in response to utilizing said allocated first portion of memory (a near-real-time program guide update indicates that that the program is running over and more memory is allocated)(p. 6, paragraph 61);

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- utilizing said allocated additional portion of memory to record the next portion of the selected content having a variable duration extending beyond the set stop time (p. 6, paragraph 61);
- determining when reception of the selected content having the variable duration extending beyond the set stop time has terminated (a short time after updated, near-real-time data is received from the electronic programming guide server, an accurate ending time of the program is established(p. 6, paragraph 61);
- repeating said utilizing and said allocating said additional portion of memory until the selected content having the variable duration extending beyond the set stop time is determined to have terminated so that all of the selected content having a variable duration extending beyond the set stop time is stored (program is recorded until the last near-real-time program guide update indicates that the program has ended)(p. 6, paragraph 61); and
- deallocating any allocated next portion of memory not used to record the next portion of the selected content having a variable duration extending beyond the set stop time after selected content having a variable duration extending beyond the set stop time is determined to have terminated (a short time after recording the event, updated near-real-time data from the programming guide server is used to accurately establish the times that the event started and ended and the portion of the event that has been recorded after the event has ended is

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deleted from the recording in order to provide a clean recording and in order to free up disk space)(p. 6, paragraph 61); and

- transmitting said selected content to a subscriber (p. 6, paragraph 61).

Safadi et al. does not specifically disclose broadcasting the selected content to a plurality of subscribers via a desired transmission channel. Ellis et al. discloses an interactive television system that provides users with an opportunity to select programs for recording on a remote media server (see Abstract). Main program guide data is provided from program guide data source 14 to interactive program guide television equipment 17 (p. 3, paragraph 58). The program data includes program identifiers and times (p. 3, paragraph 60). The interactive program guide television equipment 17 has a remote media server (Fig. 2a). Programs are stored on remote media server in response to user record requests (p. 5, paragraphs 74, 76). Recorded programs are then received and transmitted to subscribers in response to subscriber retrieval requests (p. 7, paragraph 91). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the overrun recording system of Safadi et al. to be implemented on a remote media server, such as that taught by Ellis et al. in order to provide greater storage space (Ellis et al. p. 1, paragraph 5).

The combination of Safadi et al. and Ellis et al. does not specifically teach, in a first mode of operation, associating a temporal parameter to said selected content having a variable duration extending beyond the set stop time and streaming, on-demand, said selected content having the variable duration extending beyond the set stop time and said temporal parameter to those subscribers viewing said selected content, such that said subscribers may interactively such selected content having a variable duration extending beyond the set stop time



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contemporaneously with currently broadcast programs, wherein the first mode of operation further comprises providing an interactive program guide (IPG) to said subscribers having screens presenting and selected content having temporally adjusted content for viewing and selection. The combination of Safadi et al. and Ellis et al. further does not specifically teach providing a navigator list to said subscribers having screens presenting said selected content for viewing and selection, wherein in an alternate mode of operation, streaming, on-demand, said selected content via said navigator list, such that said subscribers may interactively activate such selected content during viewership of previously scheduled broadcast programs selected from said navigator list, wherein said subscribers may interactively switch between said first mode and said alternate mode of operation. Ellis et al. further discloses a mode of caching currently broadcast programs and allowing users to perform VCR-like commands, such as fast-forward, pause, or rewind, to move from the currently broadcast program into the cached version of the program. Ellis et al. still further discloses a mode of allowing users to access a list of programs that have already been recorded on remote media server 24 and selecting programs from the list for viewing (p. 13, paragraph 145 & Fig. 18a). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the remote media storing in the combination of Safadi et al. and Ellis et al. to include allowing users to rewind a currently broadcast program or access a list of programs that were previously broadcast and recorded, such as that taught by Ellis et al. in order to provide greater user-control over when to view content.

Referring to claim **15**, the combination of Safadi et al. and Ellis et al. teaches the method of claim 12. The combination of Safadi et al. and Ellis et al. does not specifically teach that the selecting step comprises:

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- monitoring subscriber viewership; and
- selecting those broadcast programs having a viewership exceeding a predetermined metric.

Ellis et al. discloses monitoring users who have selected a program for recording and selected programs of a certain popularity (p. 6, paragraphs 85-87). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Safadi et al. and Ellis et al. to include only recording popular programs, such as that taught by Ellis et al. in order to save storage space.

Referring to claim **16**, the combination of Safadi et al. and Ellis et al. teaches the method of claim 12, wherein said selecting step further comprises:

- generating title plans for identifying content to be temporally adjusted (Safadi et al. p. 6, paragraph 61); and
- defining a temporal availability window for each program (p. 6, paragraph 61).

9. Claims **5, 6, 17-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi et al. in view of Ellis et al., and further in view of Moeller et al. (of record).

Referring to claims **5** and **6**, the combination of Safadi et al. and Ellis et al. teaches the method of claim 2. The combination of Safadi et al. and Ellis et al. does not specifically teach that the storing of the desired plurality of content comprises storing a temporally sub-sampled version of the desired plurality of content to generate a fast-forward track. The combination of Safadi et al. and Ellis et al. further does not specifically teach that the storing of said desired plurality of content comprises storing a temporally sub-sampled version of the desired plurality

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of content in reverse order in order to generate a reverse track. Moeller et al. discloses a system that is capable of transferring or playing a normal play stream at any of various indicated positions or locations (col. 6, l. 45-49). The media server stores fast forward and fast reverse streams in association with normal play streams (col. 4, l. 61-65). The fast forward and fast reverse streams have different presentation rates than the normal play stream and are generated from the normal play stream (col. 6, l. 51-59). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the step of storing in the combination of Safadi et al. and Ellis et al. to include storing fast forward and fast reverse streams in association with a normal play stream, such as that taught by Moeller et al. in order to decrease latency time at a video server.

Referring to claim 17, the combination of Safadi et al. and Ellis et al. teaches the method of claim 16. The combination of Safadi et al. and Ellis et al. does not specifically teach that the processing comprises generating real-time encoded play tracks, fast-forward tracks, rewind tracks, and entry point data (EPD) files associated with each track, said fast-forward tracks and rewind tracks forming temporally adjusted content. Moeller et al. discloses generating fast forward and fast reverse video streams from a normal play stream (col. 6, l. 55-59) and embedding indexing information within the streams to provide for indexing between the streams (col. 9, l. 10-14 & col. 11, l. 39-41). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the processing step in the combination of Safadi et al. and Ellis et al. to include generating fast forward and fast reverse video streams from a normal play stream and embedding indexing information within the streams to provide

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for indexing between the streams, such as that taught by Moeller et al. in order to efficiently index to different positions in a video stream in a video delivery system (col. 4, l. 20-23).

Referring to claim **18**, the combination of Safadi et al., Ellis et al., and Moeller et al. teaches the method of claim 17. The combination of Safadi et al., Ellis et al., and Moeller et al. does not specifically teach that the processing step further comprises:

- encoding said content identified in said title plan to form said temporally adjusted content; and
- buffering said encoded content.

Moeller et al. discloses generating compressed fast forward and fast reverse video streams from a normal play stream (col. 6, l. 55-59). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the processing step of the combination of Safadi et al. and Ellis et al. to include generating compressed fast forward and fast reverse video streams from a normal play stream, such as that taught by Moeller et al. in order to decrease latency time at a video server.

Referring to claim **19**, the combination of Safadi et al., Ellis et al., and Moeller et al. teaches the method of claim 18. The combination of Safadi et al., Ellis et al., and Moeller et al. does not specifically teach that the processing step further comprises:

- receiving packetized transport streams from at least one encoder; and
- inserting title identification codes (TICS) to each packet to enable said transport streams to be identified as said real-time encoded play tracks, fast-forward tracks, and rewind tracks.

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Moeller et al. discloses generating compressed fast forward and fast reverse video streams from a normal play stream (col. 6, l. 56-59). Moeller et al. further discloses that the encoded stream includes sequence headers that include presentation timestamps and information describing the frame rate and picture size (col. 9, l. 57-62). Moeller et al. further discloses embedding indexing information within the normal play stream and associated trick play streams to provide for indexing between the streams (col. 9, l. 10-14). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the processing step of the combination of Safadi et al. and Ellis et al. to include embedding timestamps, frame rate information, and indexing information within play streams and trick play streams, such as that taught by Moeller et al. in order to decrease latency time at a video server.

Referring to claims **20** and **21**, the combination of Safadi et al., Ellis et al., and Moeller et al. teaches the method of claim 19. The combination of Safadi et al., Ellis et al., and Moeller et al. does not specifically teach generating the EPD files as said fast-forward and rewind tracks are being created, where the EPD files provide transition between streaming of the Play, fast-forward and rewind tracks at appropriate points in response to user commands. Moeller et al. discloses generating and embedding index information within normal play streams and associated trick play streams to provide for indexing between the streams (col. 9, l. 10-14). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Safadi et al., Ellis et al., and Moeller et al. to include generating and embedding index information within normal play streams and associated trick play streams, such as that taught by Moeller et al. in order to decrease latency time at a video server.

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10. Claims **22-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi et al., in view of Ellis et al., further in view of Moeller et al., and still further in view of Youden et al.

Referring to claim **22**, the combination of Safadi et al., Ellis et al., and Moeller et al. teaches the method of claim 19, wherein the storing step comprises receiving buffered encoded content and storing the real-time play tracks in a plurality of extents (Safadi et al. p. 6, paragraph 61). The combination of Safadi et al., Ellis et al., and Moeller et al. does not specifically teach storing the fast-forward tracks in extents in a front to back order and storing rewind tracks in extents in a back to front order. Youden et al. discloses storing selected video data for a FF version in the same order as the original video data is stored and storing the selected video data for the FR version in reverse order to the original version of the video data (col. 4, l. 3-7). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the storing step in the combination of Safadi et al., Ellis et al., and Moeller et al. to include storing video data for a FF version in the same order as the original video data is stored and storing the selected video data for the FR version in reverse order to the original version of the video data, such as that taught by Youden et al. in order to decrease latency time at a video server.

Referring to claim **23**, the combination of Safadi et al., Ellis et al., Moeller et al., and Youden et al. teaches the method of claim 22, where said storing step further comprises storing selected content from a particular channel for a fixed window of time (Safadi et al. p. 7, paragraph 73).

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Referring to claim **24**, the combination of Safadi et al., Ellis et al. Moeller et al., and Youden et al. teaches the method of claim 22, where said storing step further comprises storing selected content from a plurality of channels (Safadi et al. p. 4, paragraph 37).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL VAN HANDEL whose telephone number is (571)272-5968. The examiner can normally be reached on 8:00am-5:30pm Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Michael Van Handel/  
Primary Examiner, Art Unit 2424

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